

AMD and NVIDIA: Which GPU should you use for Linux?

Is AMD or Nvidia a better graphics card for Linux computers? Let's find out with TipsMake.

When thinking of a graphics card for a computer, there are two options that immediately pop out in your mind: AMD and Nvidia.

There are a few differences between these two rival rivals. On Windows, speed is the most important, Nvidia's GPUs tend to be faster than AMD. But on Linux, there are things you need to keep in mind over speed.

Is Intel graphics chip the optimal choice for Linux?

Before comparing AMD and Nvidia, we should take a look at the two most popular graphics card alternatives available today.

In fact, Intel's graphics chip is the only choice you have. Although Intel's chip speed is not fast, but the performance has been significantly improved in recent times. Intel is probably the only graphics card that can be compared with AMD and Nvidia at this time.

Intel's support is broad, with full open source drivers on Linux operating systems. You can play a lot of easy games, sometimes you can play heavy games almost on par with dedicated graphics cards. Wayland is guaranteed to work if you want to test it, thanks to Intel's open source driver.

GPU Driver: Exclusive or open source?

There are two types of drivers you can install onto your graphics card, either proprietary or open source. Both have their pros and cons, and they make a difference when used with one of two graphics cards: Nvidia and AMD.

For comparison, proprietary drivers always yield better results. But if you prefer the open source philosophy, the remaining option is also very attractive.

Should Nvidia graphics cards be used for Linux?

Nvidia for Linux has both proprietary and open source drivers. Unsurprisingly, proprietary drivers offer even better performance. Nouveau, the open source driver for Nvidia cards, gives an overall poorer result than the competition.



A new Nvidia GPU model

Most of nouveau's tasks are through proprietary Nvidia driver inversion. It is similar to how Wine simulates Windows to run programs like Microsoft Office on Linux. Basically, developers will look at the results and thereby work the opposite.

However, this also has its disadvantages, mostly related to speed and compatibility. Exclusive Nvidia drivers are faster than nouveau, especially with today's new graphics cards.

The next weakness, nouveau lacks what all proprietary drivers have, is reclocking. This allows the GPU machine to work more, faster. However, Nvidia only some Nvidia GPUs have this feature, but they do not belong to the new generation GPU.

Speed ??differences can be considered, especially with new graphics cards. Several benchmark factors indicate that proprietary drivers can perform up to 9 times faster than open source drivers.

Put simply, nouveau is only suitable for gentle tasks on the machine. As for gaming, it still has a long way to go.

Is AMD the best graphics card for Linux?

Actually, it doesn't really matter what kind of driver you install on an AMD graphics card. They are all equally supported, although open source drivers are still the preferred method. In fact, there are many cases of open source drivers (AMDGPU for new cards and Radeon for older versions) for the same speed or even faster than proprietary drivers.

Nvidia's open source drivers support new graphics cards better. This is largely due to AMD supporting the open source community, providing documentation as well as energy to driver development.



AMD Radeon graphics card

Although the open source AMD drivers are quite stable, the performance of the machine will still be significantly slower than using Nvidia graphics cards with proprietary drivers.

AMD and Nvidia: Which is the best graphics card?

Most laptops and desktops have integrated Intel graphics. Discrete GPUs from Nvidia and AMD are additional options for laptops but can be manually installed on desktops.

Graphics conversion is the ability of a computer to select which GPU to use. For basic tasks like web browsing and word processing, Intel GPUs are the best choice. For gaming, video editing or similar heavy tasks, you should use a discrete GPU.

Exclusive and open source drivers from Nvidia and AMD for Linux machines support graphical conversion.

Do AMD and Nvidia support Wayland?

The Wayland display server is indispensable in the development of Linux and is readily available on most Linux PCs.

AMD and Intel graphics cards work together with Wayland, using open source and proprietary drivers. However, Nvidia chose a new direction.

Wayland composers need a special API (application interface program), operated by the graphics driver. The current widely used API is called GBM (Generic Buffer Management). So long as you use an open source driver (AMDGPU / Radeon / nouveau), Wayland will work. Because Nvidia's proprietary driver uses a different API (EGLStreams), things are not normal. Many composers do not support this API, only the GNOME desktop is the exception. Other similar open sources also do not support Wayland.

Which graphics card is better for Linux: Intel, AMD or Nvidia?

For desktop Linux computers, you can choose very easily.

Nvidia cards are expensive but have better performance. Using AMD ensures super compatibility and reliable driver choices, whether open source or proprietary.

Intel does the same, but its weakness is slower.

If you need to support Wayland, AMD and Intel are the best options. If not, try it with Nvidia. It may not work well with Linux computers, but it may be improved in the future.

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